

Application No. 09/975,258

140. A chromatographic column comprising a stationary phase, the stationary phase comprising a reactive affinity molecule attached to a phase separating group, the reactive affinity molecule comprising a reactive functional group and the reactive affinity molecule reacting with a target to form an adduct by forming a covalent bond between the target and the reactive functional group, where the reaction forming the adduct is reversible under the conditions of the contacting without the addition of a reagent acting at the covalent bond.

REMARKS

Entry of the amendment is respectfully requested. No new matter is added by the amendment because the added claims are fully supported by the application as filed.

Claims 79 - 140 are in this application, claims 1 - 78 having been canceled and claims 79 - 140 having been added in this Response.

In the Office Action of April 14, 2003, the Examiner required restriction between:

- I, claims 1-62 and 71-74, to a method of separating a target;
- II, claims 63-67, to a resin;
- III, claims 68-70; to an apparatus; and
- IV, claims 75-78, to a composition.

Applicants elect the invention of Group I, to the method of separating a target. Claims readable on that election are claims 79 - 128. The election is made without traverse.

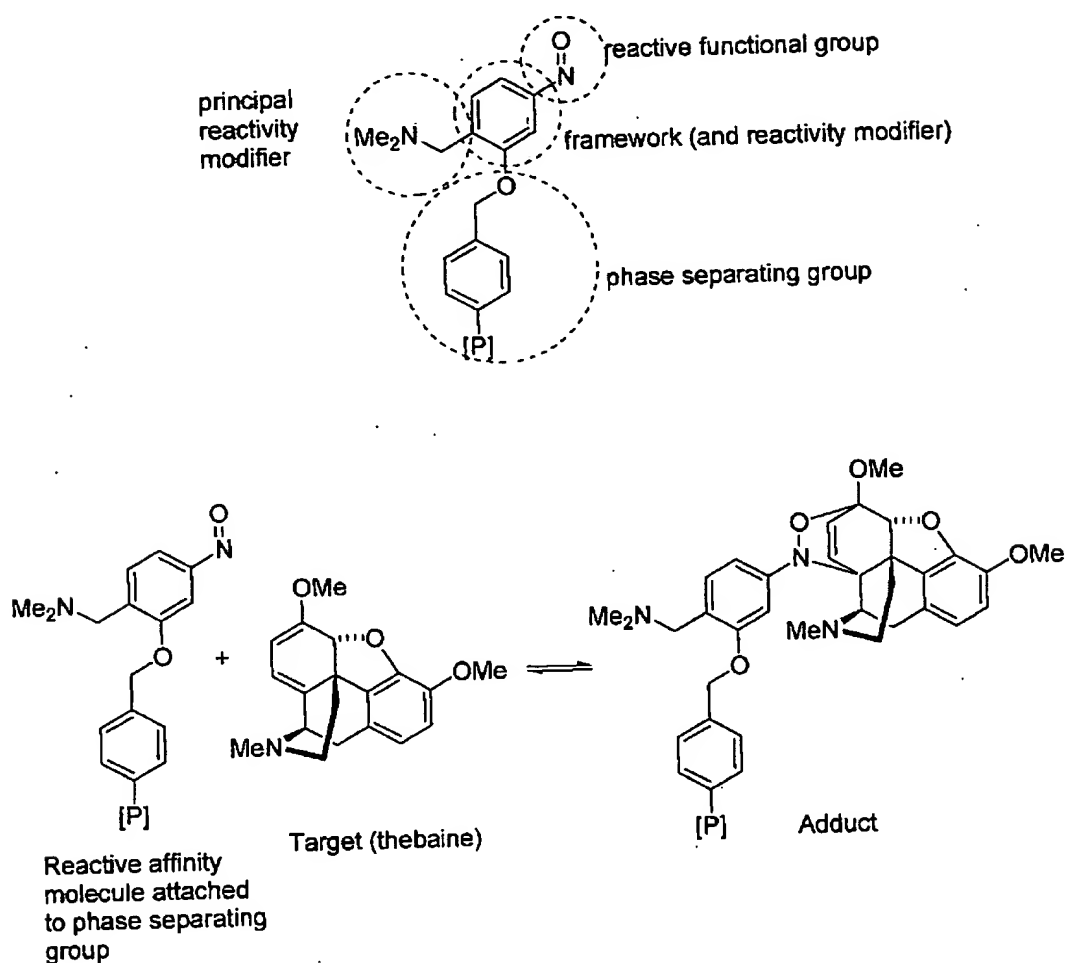
The Examiner also required election of species for examination between species of:

- I, the reactive affinity molecule;
- II, the reactive functional group;
- III, the eluent;
- IV, the property being modified;
- V, the adduct;
- VI, the reaction medium;
- VII, the phase separating group;
- VIII, the reactivity modifier;
- IX, the framework group; and
- X, the target.

Applicants note that these various species identified by the Examiner are not independent: for example, the reactive affinity molecule comprises the reactive functional group (*see* claim 79), and the adduct is determined by the reactive affinity molecule and the target (*see also* claim 79).

Applicant elects for examination the separation shown below:

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Here,
 the reactive affinity molecule is defined by the combination of the reactive functional group, framework, and reactivity modifier described below;
 the reactive functional group is the nitroso group;
 the eluent is methanol containing various amounts of a base (e.g. triethylamine);
 the property to be modified is the pH of the eluent;
 the adduct is the cycloadduct between thebaine and the reactive affinity molecule;
 the phase separating group is a polystyrene resin;
 the reactivity modifier group is the dimethylaminomethyl group *para* to the nitroso group;
 the framework group is a benzene ring; and
 the target is thebaine.

This is substantially illustrated in Figure 5 (affinity decrease by positive to neutral Rmod conversion), with the replacement of the cyclohexadiene of that Figure by thebaine, another 1,3-diene mentioned at paragraph [00116], and as further discussed in, for example, paragraphs [00118] - [00120] of the application.

Claims readable on the elected invention are claims 79-81, 87-91, 93, 94, 99, 101, 103-109, 114-116, 121-123, and 128.

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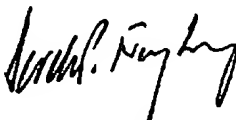
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Conclusion

Entry of the amendment, examination and allowance of the claims directed to the elected species, and extension of the examination to the non-elected species are requested.

Respectfully submitted,



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